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# **The Antecedents of Export Performance of Brazilian SMEs: The Non-Linear Effects of Customer Orientation**

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# **The Antecedents of Export Performance of Brazilian SMEs: The Non-Linear Effects of Customer Orientation**

## **Abstract**

This article examines the determinants of customer orientation and the quadratic effects of customer orientation on export performance. The relationship between customer orientation and export performance has been assumed in the literature to have a linear relationship, neglecting the possibility of non-linear relationships between those constructs. Moreover, while most studies have been conducted in developed countries, we test our model in Brazil, an emerging market. The research findings suggest that technology intensity and competitive intensity are key determinants in explaining the firm's success in the export market. Our findings also indicate that the relationship between customer orientation and export performance is quadratic (U-shaped) rather than linear. The implications of these findings along with the limitations are discussed.

**Keywords:** customer orientation, export performance, competitive intensity, technology intensity, non-linear relationship

## ***1. Introduction***

Exporting activity is important for governments which are concerned with improving the international competitiveness of their economies, and for individual firms, because it serves as a catalyst for significant growth opportunities (Czinkota, 1994; Boso et al., 2012). Exporting is a particularly appropriate mode of entry for small-and medium-sized firms (SMEs) from developing countries wishing to break into a foreign market as it offers a greater degree of flexibility, minimal resource commitment, and limits the firm risk to exposure (Deng et al., 2003; Sousa and Novello, 2014).

During the past decades, studies have shown that export performance reflects the outcomes of export behavior in firm-specific and environment-specific circumstances (Diamantopoulos, 1998; Wheeler et al., 2008). Since the seminal works by Kohli and Jaworski (1990), and Narver and Slater (1990), several studies have shown that customer orientation is a central element in explaining firm performance (e.g. Jaworski and Kohli, 1993; Hortinha et al., 2011). Although a consensus seems to hold about the positive impact of customer orientation on export performance (Sousa et al., 2008), there are still questions about its robustness (Shoham et al., 2005). Moreover, the studies that have been conducted in this area have assumed that the customer orientation-export performance relationship is linear, neglecting the possibility of non-linear relationships between those constructs (Atuaheme-Gima et al., 2005; Cadogan and Cui, 2004; Cadogan et al., 2009). However, the differences that exist between the linear and quadratic relationships and their impact are important aspects to consider in the firm's export operations. For instance, if the relationship between customer orientation and export performance is quadratic, failure to recognize that export performance may decline with too much customer orientation may have a significant impact on the firm's

export success. Therefore, SMEs must be knowledgeable of the type of relationship that exists between customer orientation and export performance.

Another limitation in the literature is that most studies have been conducted in developed countries, particularly in the US and Western Europe. To date, very few studies focusing on customer orientation have been reported from developing nations (Ellis, 2005). This is a surprise since emerging markets play an increasingly important role in the global economy (Gaur et al., 2014), and most emerging economy governments (e.g. Brazil and China) now actively encourage local enterprises to go global. Given the differences between developed and developing economies, the generalization of prior research to firms in a developing country may be inappropriate (Pangarkar and Wu, 2012). A major gap in the literature is, therefore, knowledge about whether our current understanding can be successfully generalized to firms in other countries, especially from the emerging markets.

Thus, our study provides the following contributions to the literature. First, we examine the impact of customer orientation on export performance. In the case of export operations, research into the effect of customer orientation is still in an early stage of development since most conceptual and empirical studies of customer orientation have been in the context of domestic markets (Racela et al., 2007). While exploring the role of customer orientation, we also investigate whether customer orientation mediates the effect of the firm's internal resources on export performance. In addition, we develop a model that examines whether the relationship between customer orientation and export performance is quadratic rather than linear. Previous research assumed a linear effect between customer orientation and performance, disregarding potential non-linear effects. However, the examination of potential non-linear effects has significant theoretical and managerial implications in terms of how we

view the development of customer orientation in a firm. Finally, we examine the determinants of export performance and test these relationships in the context of an emerging market, namely Brazil. As a country in this category, Brazil is particularly interesting to examine as it is South America's largest economy being responsible for about one third of the total GDP for Latin America and the Caribbean. According to the World Bank, Brazil is the seventh largest economy in the world in terms of GDP (World Bank, 2014). In addition, Brazil is part of the BRIC, the fastest-growing set of economies from the developing world.

In the next section, the theoretical background to the research is presented, along with the development of specific research hypotheses. This is followed by a description of the research methodology and test results. After presenting the discussion and implications of the results, the article concludes with limitations and suggestions for further research.

## ***2. Theoretical Background and Hypotheses Development***

### **2.1. Customer Orientation**

The literature provides different views about the role of the different components of market orientation (Zhou et al., 2007). According to Narver and Slater (1990), there are three components of market orientation: (a) customer orientation, (b) competitor orientation, and (c) interfunctional coordination. In our study we will focus on customer orientation which has been identified as the most essential part of the marketing orientation construct and can be regarded as synonymous of market orientation (Deshpandé and Farley, 1998; Deshpandé et al., 1993). A study by Tyler and Gnyawali (2002) also concludes that managers find customer orientation to be the most important aspect of their firm's market orientation. Similar arguments have been found in the literature (e.g. Wren et al., 2000; Matsuo, 2006) which

emphasize the importance of more research attention to customer orientation construct.

Customer orientation refers to the “sufficient understanding of one’s target buyers to be able to create superior value for them continuously” (Narver and Slater, 1990, p. 21). In order to create value for their target markets, firms have to gather knowledge about current and future customers, and then disseminate that knowledge throughout the firm (Lafferty and Hult, 2001; Jaworski and Kohli, 1993). Firms with a strong customer orientation have a competitive advantage because they consider the creation and maintenance of customer value to be a top priority (Olson et al., 2005; Hortinha et al., 2011). Not surprisingly, it has been argued that the interests of the customers should be the first concern in companies that want to develop long-term profitability (Deshpandé et al., 1993). This is particularly the case for SMEs where a small firm’s marketing advantage is precisely linked to the close relationships that exist between the firm and its customers due to the much shorter line of communication (Weinrauch et al., 1991; Jones and Rowley, 2011). Thus, in the literature, customer orientation is acknowledged to be a key driver of business performance (Jaworski and Kohli 1993; Zhou et al., 2007).

## **2.2. Conceptual Framework**

The conceptual model guiding this study is based on two theoretical structures that are present in the marketing literature, namely, the resource-based view (RBV) and the structure-conduct-performance (SCP) paradigm. These theories are not frequently applied in combination to explain export performance, particularly in the case of SMEs. While we use the RBV approach to focus on the internal variables, SCP theory is selected to justify the external element in our conceptual model.

The resource-based view (RBV) approach has been used as the cornerstone to understand how companies compete in their environments. The model indicates how resources are applied and combined and what makes competitive advantage sustainable in firms (Peteraf, 1993). The resource-based approach posits that internal resources are key determinants in defining company performance and profitability (Barney, 1991; Wernerfelt, 1984; Wright et al., 1994). In that sense, the raw materials available for deployment by a firm's business units are essential for defining its success in the export market (Barney, 1991; Morgan et al., 2004). According to Barney (1991), and Conner and Prahalad (1996), the resource-based theory focuses on how sustained competitive advantage is generated by the unique set of resources and knowledge that companies obtain. Moreover, the RBV is associated with the creation of superior value to consumers through the utilization of specific and scarce resources in its actions (Peteraf and Barney, 2003).

On the other hand, the SCP theory adopted in this study suggests that external factors, such as environmental elements may affect a firm's export performance. According to Morgan et al. (2004), SCP theory proposes that export performance is directly affected by the firm's market structure (e.g. competitive intensity). A fundamental assumption in SCP theory is that the structural forces that determine competitive intensity in a market have a strong impact on firm performance (McGahan and Porter, 1997; Scherer and Ross, 1990). This theory suggests that a company's performance is a function of differences in market conditions (Chen, 1999). Based on the SCP paradigm, Morgan et al. (2004) argue that the external environment (i.e. competitive intensity) is a major antecedent of export performance. Moreover, the nature and type of market environment has different effects on the firm's export performance.



The RBV and SCP perspectives share a common objective in trying to understand how companies achieve a better performance. We can, therefore, suppose that firm performance may be influenced by the use of certain practices (in the RBV) or the conditions of a particular market (in the SCP). Considering those propositions, we support the adoption of both perspectives (SCP and RBV) to give a balanced view of the factors that influence export performance in companies, whether these are external or internal. Specifically, we propose to focus on both perspectives to understand the export performance of Brazilian small and medium enterprises as an outcome of internal and external elements from the company and the marketplace. Based on both approaches we identify a set of internal and external factors that may affect the export performance of Brazilian SMEs. The internal resources we consider in our study are: customer orientation, managerial experience, and technological intensity.

Customer orientation refers to the analysis and comprehension of the needs and demands of customers and provides the company with direction in respect of what should be done in terms of products and services (Narver and Slater, 1990). Customer orientation can be considered as a resource, since it is an intangible property of the firm that will enable it to convert information into actions, thereby creating superior value for the customers (Armario et al., 2008; He and Wei, 2011; Hunt and Lambe, 2000). The other internal factors proposed in this study (i.e., managerial experience and technological intensity) find support in Penrose's (1959) proposition that managerial and technological resources should encompass the resource domain of the firm. Among the resources, the intangible ones stand out as they are more difficult to imitate and the most likely to generate sustainable competitive advantages (Galbreath and Galvin, 2008). Not surprisingly, several studies suggest that intangible resources are far more likely to underlie performance than tangible resources (Amit and Schoemaker, 1993; Hitt et al., 2001; Barney, 2001). In this context, managerial

experience has to be considered an important intangible resource that affects the export operations of firms, since export market knowledge accumulated through experience constitutes a valuable resource which is difficult to imitate (Brooks and Rosson, 1982; Sousa et al., 2008). Among the intangible resources, technological resources are particularly significant as they provide a firm with an innovative capacity which is important for the creation of competitive advantages to operate successfully in foreign markets (Rodríguez and Rodríguez, 2005; Higón and Driffield, 2011). In this regard, several studies (e.g. Basile, 2001; Sousa and Novello, 2014) have emphasized the role of technology as one of the main factors contributing to the success of the firm's international operations. In relation to technological resources, while technological intensity has not received much attention in the field literature (Dhanaraj and Beamish, 2003), it has been considered a key element to explain the internationalization process of the firm (Buckley and Casson, 1991). Therefore, the firm's technology intensity has been incorporated in the proposed model as an important internal component to explain the export activities of SMEs.

Finally, the SCP theory posits that external components in the marketplace are vital to determine firm performance (Porter, 1980). In line with previous studies, we argue that the external environment is a factor that may directly affect the customer orientation and the export performance of the firm (Morgan et al., 2004; Jeong et al., 2006). The external factor present in our model that may affect export performance is the market's competitive intensity. Additionally, recent export performance literature (e.g. Lages and Montgomery, 2005) suggests that foreign competition is a key issue that needs to be considered. The hypothesized relationships among variables are presented below, based on the two theoretical approaches that support our propositions. An overview of the conceptual framework is presented in Figure 1.

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Insert Figure 1 about here  
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### **2.3. Research Hypotheses**

The more competitive the market, the more difficult it is for the firm to acquire market shares that ensure their survival (Mudambi and Zahra, 2007). As a result, intense competition in the export market increases the need to actively monitor customers and competitors and respond to change in the environment (Awuah, 2008). It is particularly important to ensure that the firm engages in adequate promotion, delivers on time, properly maintains service, and develops the right product for its markets (Terpstra, 1987). Thus, firms operating in export markets under intensely competitive conditions are more likely to emphasize the need for more expertise in monitoring their customers, and paying special attention to their needs. This need to emphasize the understanding of one's customer is directly linked to firm's survival in the foreign market. Unfamiliarity with the requirements of the foreign environment endangers a firm's survival in the foreign market (Sui and Baum, 2014). Not surprisingly, studies have indicated that the survival of the firm hinges on the development of competences such as customer orientation (e.g. Knight and Kim, 2009). Customer orientation, in that sense, means to create superior value for the customer and continuously meet customer expectations with quality products and services in markets of intense competition (Narver and Slater, 1990). Firms which are able to provide superior customer value will build loyalty and commitment and reduce the motivation to switch to competitors (Homburg et al., 2002). This is particularly critical when competitive intensity is high since there is a greater degree of competitive marketing activity with the aim of increasing the customer response to competitive marketing efforts. In a highly competitive market, firms need to be more attentive to the changing needs of customers (Lusch and Laczniak, 1987). Adopting a customer orientation approach is one of

the key ways in which firms can accomplish this. Therefore, companies with higher levels of customer-oriented practices will be more capable of coping with the intense competition of foreign markets. Based on the above, we propose the first hypothesis:

*H1: The greater the level of competitive intensity in the export market, the higher the degree of customer orientation of the firm*

In the present study we hypothesize that technological intensity will have a positive impact on customer orientation. The rationale behind this proposition is that marketing a product with a high degree of technological complexity in a foreign market, generates a greater need for understanding the market, and customers' and competitors' practices (Bradley, 2002). While technological competencies are important for the firm's success and survival in the foreign market, it is important that the introduction of technological complex products is accompanied by an effort to understand the market and customers thereby reducing the odds of failure (Mudambi and Zahra, 2007; Cantwell, 1989). Buyers of technically-sophisticated items are more likely to place demands on manufacturers that drive firms to focus more on the underlying needs and purchase requirements of their customers (Bello et al., 2003). Also customers of technologically-intensive products tend to demand more value added services. As the technical nature of the product increases, these added services become increasingly important and the firm must be prepared to continuously meet the expectations of their customers with their products and services (Sousa and Bradley, 2009; Celly and Frazier, 1996). Moreover, as the product complexity increases, customers may require more support in operating and maintaining the products (Venohr and Meyer, 2009). Therefore, firms that produce technologically intense goods must engage in more training and technical support activities in order to be able to market and service the product properly in

the export market (Cavusgil and Zou, 1994; McGuinness and Little, 1981). Thus, technology-intensive products lead companies to adopt a higher degree of customer-oriented behavior.

Based on these arguments, we propose the second hypothesis:

*H2: The greater the level of technological intensity of the product, the higher the degree of customer orientation of the firm*

The relationship between managerial experience and customer orientation has not received much attention in the marketing literature. We argue that a strong relationship exists between those two components, since the manager's knowledge of the foreign market will lead to a better comprehension of the customer which is a central aspect of the customer orientation behavior. The concept of absorptive capacity in the organizational learning literature could be useful in this context. Absorptive capacity is the firm's ability to recognize the value of new, external information, assimilate it, and apply it (Cohen and Levinthal, 1990). The term 'absorptive capacity' can be used to explain a firm's ability to turn experiences into useful knowledge in an ongoing business (Eriksson and Chetty, 2003). Previous experience adds to the manager's human capital by providing valuable knowledge and absorptive capacity relevant to the international operations of the firm (Filatotchev et al., 2009). Knowledge development is a cumulative experience, insofar as prior experiences generate knowledge that is applied as managers make decisions about their ventures (Hultman et al., 2011). Experience from foreign operations will facilitate learning about the foreign market (Carlsson et al., 2005). The previous international business experience of decision-makers represents an important organizational resource which allows the firm to obtain specific knowledge of the process of identifying and serving foreign customers (Filatotchev et al., 2009). In that sense, managers who have higher levels of international experience can

provide firms with a better appreciation of the potential market, enabling their companies to access information about customers and competitors, leading to a higher level of customer orientation. O'Hara et al. (1991) propose that more experienced workers, familiar with the customer's needs, are more likely to present customer-orientated behavior, if compared to less experienced employees. Franke and Park (2006) also provide support for the assumption that workers with higher experience perform better and present customer-oriented behavior. Based on the above discussion, we propose the next hypothesis:

*H3: The higher the level of the manager's international experience, the greater the customer orientation of the firm*

The relationship between competitive intensity and export performance has been thoroughly studied in the marketing literature (Lages and Montgomery, 2005; McGahan and Porter, 1997; Morgan et al., 2004; Ambler et al., 1999; Scherer and Ross, 1990). However, the results achieved by those studies are mixed, demanding a better understanding of the proposed relationship. According to Sousa et al. (2008), market competitiveness has been alleged to have an important influence on export performance. Competitive markets tend to be more dynamic with frequent changes in their competitive conditions, and shifts in customer tastes and needs. These changes usually create uncertainty for the firm and make long-term planning difficult (Zahra et al., 1997). These uncertainties also create additional difficulties for the firm in its efforts to succeed as they increase the possibility of making wrong decisions, and thereby reducing the performance of the firm abroad (Sousa and Bradley, 2008). Not surprisingly, O'Cass and Julian (2003) argue that the lack of competition in an export market contributes positively to export performance. Our hypothesis is based on the proposition that firms operating in less competitive markets will perform better. This is

consistent with the study by Sriram and Manu (1995) who found that firms exporting to less competitive markets tend to achieve better results. Thus, the following hypothesis is proposed.

*H4: The higher the competitive intensity, the lower the degree of export performance*

According to the RBV, customer orientation is a resource that is likely to generate a sustainable competitive advantage that may lead to superior performance (Slater and Narver, 1995). Customer orientation represents the sufficient understanding of one's target buyers to be able to continuously create superior value (Narver and Slater, 1990). To ensure the creation of superior value, the firm has to understand customer needs and wants. A firm that consistently identifies and responds to such preferences will be in a better position to satisfy customers and perform well against competitors (Cadogan et al., 2002). Simply put, customer-oriented firms perform better (Deshpandé et al., 1993) since they are more likely to understand what their customers are willing to pay for. In the export marketing literature, the relationship between customer orientation and export performance has been assumed as a linear positive relationship, implying that to achieve greater levels of export performance, firms must continuously invest in customer-oriented behaviors. This rationale is grounded in the RBV paradigm, in which increasing efforts in market-oriented behaviors are considered to positively affect the firm's performance (Hunt and Morgan, 1995; Katsikea and Morgan, 2003; Sørensen, 2009). Therefore, our sixth hypothesis explores the positive linear relationship between customer orientation and export performance.

*H5: There is a positive linear relationship between customer orientation and export performance*

We also propose an alternative hypothesis to H5. The alternative hypothesis assesses the possibility that the customer orientation-export performance relationship is quadratic rather than linear. A small number of studies have been published (Cadogan and Cui, 2004; Cadogan et al., 2009) exploring the non-linear relationship between market orientation constructs and export performance, revealing an area that is still in need of further research. H5 postulates that firms will perform better when customer-oriented behavior is higher. This means that export performance will always increase with more investments in customer orientation. However, based on the theory of the growth of a firm, a company has no way to extend itself without limitation, because the management capability and resources of a company restrict the growth of the company (Penrose, 1959). Therefore, firms operate under limited budgets and have to prioritize their resource investments optimally (Cadogan et al., 2009).

Additionally, although customer orientation is an important tool for developing competitiveness and enhancing performance, other customer value-enhancing strategic orientations must also be leveraged to meet the customer's demands (entrepreneurial, innovation, learning, and technological orientation) (Cadogan et al., 2009; Gatignon and Xuereb, 1997; Hult and Ketchen, 2001). Indeed, companies should never be locked into a particular external emphasis, since environmental conditions are transient and fluid (Slater and Narver, 1994). Also, developing the excessive behavior of constantly screening customer needs would be harmful to other strategic dimensions (Ulwick, 2002), as constant changes in customer demands would prevent companies from being able to develop the required skills in a particular technology (Atuaheme-Gima et al., 2005). Thus, a firm's budgets have to be parsimoniously allocated in order to accommodate resource demands from different strategic areas.



Taking these arguments into consideration, as companies begin to invest in customer-oriented behaviors, export performance will increase, since companies become more knowledgeable about customer needs and demands. However, further investment in customer orientation after an optimal point would lead to harmful results, thus indicating the existence of an inverted U-shaped relationship between customer orientation and export performance. It is worth mentioning that a few researchers (Atuaheme-Gima et al., 2005; Cadogan and Cui, 2004; Cadogan et al., 2009) also found similar results when analyzing the relationship between market orientation and firm performance. Therefore, we propose the following hypothesis:

*H6: There is an inverted U-shaped relationship between customer orientation and export performance.*

Exploring the role of customer orientation is important to fully understand the relationships among the study's constructs. As a result, we are interested in exploring whether customer orientation mediates the effect of the firm's internal resources on export performance. While it has not been extensively studied, the possible mediating role of customer orientation has been previously examined in the literature (e.g. Williams and Attaway, 1996). As indicated above, technology intensity and managerial experience are expected to have a positive impact on customer orientation, which in turn is an important predictor of a firm's export performance. Consequently, it is proposed that it is through the development and leveraging of the firm's intangible resources (i.e., technology intensity and experience) into customer orientation that firms are able to achieve superior export performance. Thus, the following hypotheses will be tested in this study:

*H7a: Customer orientation mediates the influence of technology intensity on export performance.*

*H7b: Customer orientation mediates the influence of managerial experience on export performance.*

### **3. Methodology**

#### **3.1. Sample and Data Collection Procedure**

The study was conducted using a sample of exporting firms based in Brazil. We used a multi-industry sample to increase the observed variance and to strengthen the generalizability of the results (Morgan et al., 2004). The research was based on a survey of 700 small and medium-sized firms (SMEs), which was randomly generated from the trade association database of non-government agencies. In line with the OECD's 1994 definition, we use 500 employees as the dividing line between a SME and a large firm (please see Appendix 1 for sample characteristics).

The structured questionnaire used was originally written in English and translated into Portuguese by a bilingual expert. Academic experts who were familiar with the topic under investigation assessed the content validity of the items. As suggested by Churchill (1979), the measures were then refined through interviews with people capable of understanding the nature of the concept being measured, i.e. managers involved in export operations. The questionnaire was, therefore, given to a pre-test sample of eight managers. Based on their feedback the survey was revised. The questionnaire was then back-translated into English and checked for consistency with the original translated version to enhance 'translation

equivalence' (Craig and Douglas, 2005; Van de Vijver and Leung, 1997). The effective response rate was 19% (132 usable questionnaires). This result constitutes a fairly high response rate, considering that the average top management survey response rates are in the range of 15-20% (Menon et al., 1999), and it is considerably higher than other studies conducted in countries with a developing economy (e.g. Zou et al., 1997).

To explore the issue of non-response bias, we tested for differences between early and late respondents (Armstrong and Overton, 1977). As recommended by Weiss and Heide (1993), early responses were defined as the first 75% of returned questionnaires. The last 25% were considered late responses and representative of firms that did not respond to the survey. Using a *t*-test, early and late respondents were compared on all the variables and no significant differences were found (at the conventional 0.05 level); this suggests that non-response bias was not an issue. Moreover, since anonymity was guaranteed, bias associated with those who did not wish to respond for confidentiality reasons was also reduced (Bialaszewski and Giallourakis, 1985).

Particular attention was paid to the identification and selection of the most appropriate person in each firm to participate in the study. Because of involvement and direct responsibility in decision-making, the manager was considered to be a major force behind the initiation, development, sustenance, and success of a firm's foreign activities. To ensure the reliability of the data, the respondents selected were senior managers with responsibility for foreign operations. The approach suggested by Huber and Power (1985) of using a single key informant was also adopted, with a view to minimizing the potential for systematic and random sources of error.

### 3.2. Measures

This study uses the main export venture, the most important product exported to the most important foreign market, as the unit of analysis. The use of the export venture allows us to identify and isolate specific antecedents of export performance (Morgan et al., 2004). For all constructs in the theoretical model the identified unit of analysis was the firm's *main export venture* to its primary export market.

In order to measure export performance the following items were used: overall satisfaction, meeting expectations, improved global competitiveness, and strengthened strategic position. Those items have been frequently used in previous studies (e.g. Zou et al., 1998; Sousa et al., 2010). In relation to *competitive intensity* in the main export market, we relied on the scale developed by Morgan et al. (2004). *Technology intensity of the product* was assessed by asking respondents to indicate the degree of technology intensity of the product on a five-point scale ranging from 'not technology intensive' to 'highly technology intensive'. The *experience of the manager* was measured by asking respondents to indicate their degree of professional exporting experience, and their level of proficiency of the language spoken in the main export country (Das, 1994; Sousa and Bradley, 2006). Finally, *customer orientation* was measured using the Narver and Slater (1990) scale (see Appendix 2).

In addition to the variables specified in our model, the following control variables were included: size of the firm, competitor orientation, interfunctional coordination, psychic distance, year of internationalization, duration of international business in the export market, and age of the firm. Following previous studies, firm size was measured by using the number of employees (Brouthers and Nakos, 2005). The scales provided by Narver and Slater (1990)

were used to measure competitor orientation and interfunctional coordination. Psychic distance was measured using the scale provided by Sousa and Bradley (2006). The respondents also indicated how many years the firm has been involved in the export market, year of internationalization, and the age of the firm.

### **3.3. Assessment of Common Method Bias**

As common method bias may be an issue in international research, and considering that we have used a single respondent from each company to collect our data, some procedures have been adopted to safeguard our constructs from the effects of systematic errors that either inflate or deflate the relationship between them. The first procedural remedy was on the designing process and administering the questionnaire. We mixed the order of the questions and used different types of scales and metrics. Here, we followed the procedure proposed by Podsakoff et al. (2003), who suggested that researchers should use different scale endpoints. In the case of our questionnaire there are three different types of scale endpoint. By applying that procedure, “respondents cannot easily combine related items to cognitively “create” correlation needed to produce a CMV-biased pattern of responses” (Chang et al., 2010, p. 180). Secondly, we guaranteed to all participants that their participation was anonymous and confidential, and that there were no right or wrong answers. These procedures should reduce people’s evaluation apprehension and prevent them from editing their answers such that they become more socially acceptable and consistent with what researchers desire as a response. Thirdly, respondents were not aware of the conceptual model that supported our study. This should prevent them from creating correlations between constructs.

Additionally, the Harman single-factor test was performed. This test consists of loading all items used to measure the constructs onto one single factor using exploratory

factor analysis. Common method bias is an issue when one factor emerges from the exploratory factor analysis or when the majority of variance of the sample is explained by one factor. The solution obtained by the exploratory factor analysis for all items provided five factors, all with eigenvalues higher than 1. The first factor accounted for less than 30% of the total variance. Following Morgan et al. (2004), we also used confirmatory factor analysis (CFA) to test a single method factor. The fit indexes for a single-factor model (CFI=0.257; TLI=0.122; IFI=0.269; RMSEA=0.231) suggest a poor model fit, indicating that common method bias is not likely.

Finally, in addition to the above tests, we conducted the marker variable technique (Lindell and Whitney, 2001). This test consists of introducing a theoretically-unrelated variable and assessing its correlations with the other variables of interest. The correlations between the marker variable and the other variables are signs of common method bias (Malhotra et al., 2006). The marker variable included in this study is the age of the manager. The correlation results indicated that this marker variable (age of manager) is not related to the variables of interest included in our model. The correlations varied from .01 to -.12, and the average correlation between the marker variable and the other variables of interest is .05. Using structural equation modelling, we included the marker variable in the theoretical model to have an effect on each indicator of our latent variables and compared the model with and without it. The results indicated that there were no significant changes in both models. Considering the findings of the three statistical tests conducted and the other procedural remedies aforementioned, we can conclude that common method bias was not a concern in our sample.

### 3.4. Model Estimation

We used structural equation modelling with maximum likelihood (ML) approach to test the hypothesized relationships and model. Statistical software AMOS 20.0 was used to estimate the model parameters. The model estimation was conducted in two steps. In the first step we assessed the overall measurement model through confirmatory factor analysis (CFA). Construct validity was also assessed at that stage. In the second phase of the estimation we tested the hypothesized structural relationships of the model presented in Figure 1.

We followed Ping's (1995) estimation technique proposition to calculate the quadratic effect tested in the model. The quadratic effect of customer orientation was obtained by using a single indicator created by squaring the mean of the observed variables that composed that construct. As the powered term was highly correlated with the customer orientation variable from which it was derived, we used the residual centering procedure (Little et al., 2008). This procedure allowed us to avoid problems related to the estimates instability of the regression coefficients, i.e. to avoid the possibility that these estimates of the main effects may change when higher-order terms enter the model.

One of the purposes of this study is to assess whether the relationship between customer orientation and export performance is quadratic rather than linear. Thus, we paid special attention to the criteria used to establish whether that relationship is linear or curvilinear. A quadratic relationship might be represented by a linear and a quadratic term, such as  $Y = \alpha_1 X + \alpha_2 X^2$ , or solely by the quadratic term  $Y = \alpha_2 X^2$  when  $\alpha_1$  is zero. In the particular case of an inverted U-shaped relationship between the quadratic term of customer orientation and export performance,  $\alpha_2$  must be negative (McCallum et al., 2010). In that case, the relationship will be represented by a concave function. Support for the contention that the

relationship between customer orientation and export performance is linear (H5) is provided if the regression coefficient that represents that hypothesis is positive and significant and the coefficient for hypothesis H6 is not significant. However, support for hypothesis H6 (inverted U shape relationship between customer orientation and export performance) is provided if its regression coefficient is negative and significant.

#### ***4. Analysis and Results***

##### **4.1. Reliability and Validity**

We started by evaluating the psychometric properties of export performance, competitive intensity, managerial experience, customer orientation, and export performance. We initially performed exploratory factor analyses (EFA), computed item to total correlations, and calculated Cronbach's alpha coefficients (Cronbach, 1951). All measures were now unidimensional and showed accepted reliability levels with all alpha coefficients equal or above 0.62.

We further assessed discriminant validity, convergent validity, and scale reliability with confirmatory factor analysis (CFA), in line with the paradigm advocated by Anderson and Gerbing (1988). Tables 1 and 2 display the results obtained from the estimation of the CFA model. The results indicate that the overall chi-square for this model was 104.962 ( $p < 0.001$ ) with 54 degrees of freedom (df). Four measures of fit were examined: the comparative fit index (CFI=0.937), Tucker-Lewis fit index (TLI=0.909), incremental fit index (IFI=0.939), and the root mean square error of approximation (RMSEA=0.060). The results of the CFA model also show that the items employed to measure the constructs were both valid and reliable. More specifically, convergent validity is evidenced by the large and significant standardized loadings ( $t > 1.96$ ,  $p < .05$ ) of the items on the respective constructs.



We used two methods to assess discriminant validity of the measures. Firstly, we examined the chi-square difference by running pair-wise tests for all the scales. All chi-square differences have high significance (e.g., the test for customer orientation and export performance,  $\Delta\chi^2(1)=18.01$ ,  $p=0.00$ ), which indicates the discriminant validity (Anderson and Gerbing 1988). Secondly, discriminant validity was assessed by observing the construct inter-correlations. These were significantly different from 1, and the shared variance between any two constructs (i.e. the square of their inter-correlation) was less than the average variance explained in the items by the construct (Fornell and Larcker 1981) (see Table 2).

As far as the reliability is concerned, all constructs present acceptable levels of composite reliability (CR): export performance (CR=0.77); customer orientation (CR=0.78); competitive intensity (CR=0.81); and managerial experience (CR=0.66). In terms of variance extracted, all constructs were equal or exceeded the recommended level of 0.5. We conclude, therefore, that for all constructs, the indicators were sufficient and adequate in terms of how the measurement model was specified.

\*\*\*\*\*  
 Insert Table 1 and 2 about here  
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## 4.2. Testing of Hypotheses

Because of the complexity of the model and the need to test the relationships between the constructs simultaneously, structural equation modelling was used by applying the maximum likelihood (ML) method (Amos version 20.0). The overall chi-square for the model exhibited in Figure 1 was significant (chi-square = 130.945,  $df = 71$ ,  $p < 0.001$ ). We therefore examined the structural diagnostics for relative global fit according to the procedures

suggested by Bollen (1989). As with the CFA model, the other measures of fit were: comparative fit index (CFI=0.935) Tucker-Lewis fit index (TLI=0.904), the incremental fit index (IFI=0.938), and the root mean square error of approximation (RMSEA=0.058). Given that all the fit indices were inside the cut-off values suggested by the literature, the model was deemed acceptable (Vandenberg and Lance 2000). The relationships proposed in the model were examined next and the standardized path coefficient estimates are presented in Table 3 and Figure 2.

\*\*\*\*\*  
 Insert Table 3 and Figure 2 about here  
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Consistent with hypothesis H1, the results indicate that the greater the level of competitive intensity in the export market, the higher the degree of customer orientation of the firm as indicated by a parameter estimated of 0.179 ( $p < 0.05$ ). Similarly, as predicted by H2, the level of technological intensity of the product has a significant positive impact on the degree of customer orientation of the firm (0.297;  $p < 0.01$ ). Surprisingly, the results for H3 (0.064;  $p > 0.10$ ), fail to provide support for the notion that a manager's international experience is positively related with the degree of customer orientation of the firm. In relation to H4, the results support our hypothesis that competitive intensity has a negative effect on export performance of the firm (-0.175;  $p < 0.05$ ).

As the estimated coefficient of customer orientation on export performance is positive and significant (0.454;  $p < 0.01$ ), and the coefficient that represents the relationship between customer orientation squared and export performance is also positive and significant (0.187;  $p < 0.05$ ), both hypotheses H5 and H6 are rejected. However, taken together, those results reveal that the relationship between customer orientation and export performance is U-shaped rather than an inverted U-shape as predicted in hypothesis H6. The argument that the

relationship between customer orientation squared and export performance is positive (U-shaped) rather than negative (inverted U-shaped) is that the regression coefficient that represents the linear relationship is significant ( $\alpha_1$ , H5) but the regression coefficient  $\alpha_2$  (H6) is also positive and significant. Thus, the relationship between customer orientation and export performance is quadratic and positive, being represented by a concave curve. Figure 3 shows the quadratic function of export performance in relation to customer orientation.

\*\*\*\*\*  
 Insert Figure 3 about here  
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Besides the direct effects specified in the model, we estimated the mediating role of customer orientation between the internal resources technology intensity and managerial experience, and export performance. The mediation is employed to reveal the existence of a significant intervening effect of the mediating variable (customer orientation) between resources (technology intensity and managerial experience) and export performance. We tested whether the mediating variable in the model (i.e., customer orientation) accounts for a proportion of the relationship between predictor (technology intensity and managerial experience) and criterion variables (export performance). In order to test the mediating effects of customer orientation we decided to adopt the bootstrapping method. The bootstrapping method has been recommended over the Baron and Kenny (1986) approach because it provides a higher level of power and reasonable control over the Type 1 error rate (Cheung and Lau, 2008). Table 4 displays the direct, indirect, and total effects of technology intensity and managerial experience on export performance via customer orientation. The results indicate that none of the direct effects of technology intensity or managerial experience on export performance were significant (respectively, 0.102;  $p > 0.10$  and 0.216;  $p > 0.10$ ). In terms of indirect effects, we found technology intensity to have a significant effect on export

performance (0.232;  $p < 0.01$ ), whereas the indirect effect of managerial experience is not significant.

\*\*\*\*\*  
Insert Table 4 about here  
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## ***5. Discussion and Implications***

### **5.1. Discussion**

Although the direct link between customer orientation and firm performance has received empirical support, there are still questions about its robustness, particularly in the case of export operations, since most studies have focused on domestic markets. Additionally, the majority of studies that have been published in the area have explored the customer orientation-export performance relationship as linear, neglecting other types of effect, such as quadratic relationships. Moreover, to date, very few studies have been reported from developing nations. To address these gaps in the literature we developed a model that examines these relationships in the context of a developing country, namely Brazil. In this model, we investigated whether customer orientation mediates the effect of the firm's internal resources on export performance. In addition, we examined the linear and non-linear effect of customer orientation on export performance. The results achieved in this study indicate a strong relationship between the internal and external aspects present in the marketplace, and the export performance of small and medium-sized Brazilian firms, thereby providing support for the idea that the RBV and SCP approaches have to be taken into consideration when evaluating the success of SMEs in international settings.

Initially, our results indicate that the competitive intensity of the market has a strong and positive effect on the customer orientation behavior of small and medium-sized firms.

Customer orientation seems to be more important for those companies that develop their activities in highly competitive markets (Sousa and Bradley, 2009). A customer-oriented behavior is necessary in those markets where customers have the choice to switch their providers (Cadogan et al., 2003). Fostered by the level of competition, firms are driven to develop customer-oriented actions and behavior, enabling them to perform better even in intensely competitive scenarios. It also supports claims that a firm's survival in the foreign market is linked to an understanding of the customer and therefore the development of competences such as customer orientation (Sui and Baum, 2014; Knight and Kim, 2009).

The technology intensity of the product marketed by the firm and its relationship with the customer orientation has also been addressed in this study. As the results revealed, for those SMEs where the product is highly technology-oriented, there will be a higher degree of customer orientation. The results also appear to support the notion that technology intensity has an indirect effect on export performance via customer orientation. This is consistent with the proposition that marketing highly technological products demands a better understanding of customers, markets, and competitors, leading to a higher level of customer-oriented behavior (Bradley, 2002) which should have a positive impact on the firm's performance. Thus, firms with such characteristics must be better prepared for the competition in foreign markets, developing a customer-oriented stance. These results imply a higher level of training of the firm's employees and technical support activities for the products (Cavusgil and Zou, 1994; McGuinness and Little, 1981).

As expected, the results support our hypothesis that high competitive intensity has a negative impact on export performance. This is particularly relevant for firms from emerging markets. Firms from emerging markets which intend to enter more developed markets must

continuously monitor the moves of their competitors, and change their product and service offering more frequently than in developing markets (Matanda and Freeman, 2009). As a result, the higher competitive intensity in developed markets requires firms to deploy more resources to enhance product and service offering to meet customer needs and demands, and this requirement tends to reduce their profitability in the export market (Sriram and Manu, 1995).

Contrary to our expectations, however, the results obtained in the present study revealed that the manager's international experience has no significant impact on customer orientation. While this result is surprising it is consistent with previous studies which found that international experience did not play a significant role in explaining the foreign activities of the firm (e.g. Leonidou and Katsikeas, 1996; Nakos and Brouthers, 2002; Contractor et al., 2005).

Customer orientation has long been discussed in the marketing literature, and represents a cornerstone in the field (Narver and Slater, 1990). Our findings suggest that the relationship between customer orientation and export performance is quadratic rather than linear. Moreover, the positive sign of the path coefficient between the quadratic term of customer orientation and export performance, reveals the existence of a U-shaped relationship rather than an inverted U-shaped one as predicted in H6. This means that at very low and very high levels of customer orientation SMEs perform well in foreign markets. However, if firms develop mid-range customer orientation practices, they may be outperformed by their competitors (Cadogan and Cui, 2004). This is consistent with the argument of Narver and Slater (1990) that at very low levels of market orientation, firms are very internally focused, especially on financial and profit contributors aspects, and thereby, are more likely to remain

efficient. Cadogan and Cui (2004) also hypothesized that export agents who are less market-oriented achieve higher performance if they leave market-oriented activities to other partners in the export value chain. In these conditions, exporters do not have to incur costs associated with the development of market-oriented behaviors. On the other hand, mid-range levels of customer orientation practised by firms have detrimental impacts on their export performance. The rationale behind this argument is that when companies start to invest in market-oriented actions, such as customer orientation, they have not channelled enough resources to become truly customer-oriented. Under these conditions they are neither truly customer-oriented nor internally-focused. As a result, they lose the clear focus on their internal activities and are not sufficiently capable of competing with more customer-oriented companies. However, firms will benefit from increasing investments in customer orientation after a certain point. As SMEs become more knowledgeable of the market characteristics and their customers, they are more likely to be effective in their actions.

The Barney and Wright (1998) framework appears to provide further support for this U-shaped relationship. These scholars argue that resources provide a source of competitive advantage only if the firm is organized to exploit and capitalize on them. Organizations should focus attention on systems, rather than single actions in order to capture resources contributions that lead to sustained competitive advantages. Practices are maximally effective when they exist as a coherent system (Barney and Wright, 1998). Thus, we argue that, at mid-range levels of customer orientation, firms are not able to fully capitalize on this type of resource since organizational arrangements or systems have not been fully developed to capture its contribution to the firm's success. Moreover, at this point the firm has moved away from its internal focus that was responsible for its superior performance at the very low level of customer orientation. Thereby, as the firm intensifies its investment in customer

orientation, and this strategic orientation becomes an embedded function within the company, its paybacks are more likely to be achieved.

Overall, the empirical results provide broad support for our theoretical model. From an RBV theory perspective, strong support was found for the role of technology intensity and customer orientation to explain the export performance of the firm. Contrary to expectations, managerial experience was found to be less important than RBV theory suggests. A possible explanation is that the direct determinants of export performance are derived from resources, such as customer orientation, that are the result of managerial decisions influenced by market forces (Ferrier, 2001; Luo and Peng, 1999). Consistent with the SCP theory, our findings also indicate that competitive intensity is important in affecting the export operations of the firm. This result provides further support to a key SCP premise that structural forces that determine competitive intensity in a market have a strong impact on firm performance (McGahan and Porter, 1997; Scherer and Ross, 1990).

## **5.2. Implications for Business Marketing Practice**

The findings of this study have practical implications for SMEs' export operations. Firstly, firms that experience high levels of competition in foreign markets should strive to develop a better attitude towards customer-oriented behavior. This should be addressed by a better comprehension of the market and customers. To facilitate such comprehension, firms should apply tools and expertise in helping them monitor customer characteristics, needs and wants.

Secondly, we also revealed that companies that deliver technology-intensity products will present a higher level of customer orientation. This result unveils a significant meaning



for export managers, since they have to prepare the company to develop a customer-oriented stance. This means that for technology-led companies, training and technical support activities must be undertaken in order to achieve successful results in the marketplace. Intensive and continuous training should be on the agenda for employees in those companies.

Regarding the results of the customer orientation-export performance relationship, our study has a significant impact for SMEs engaging in foreign operation. Our results revealed a positive U-shaped relationship between the two constructs in this relationship. This means that the relationship will be beneficial when the level of customer orientation commanded by the company is very low or very high. Therefore, we recommend SMEs to adopt either of these two different patterns of behavior. In the first one, the company concentrates on developing its expertise in those internal activities that may make it internally highly efficient. In this perspective, investments in customer-oriented activities would have to be undertaken by other partners in the value chain. This approach is particularly recommended to those SMEs with low budgets, and which must optimally allocate their resources. In that case, more efforts should be channeled to the optimization of industrial processes and the development of financial controls. The second approach posits that SMEs have to invest heavily in customer-oriented activities, avoiding what Narver and Slater (1990) called the tentative market-oriented adopters. In that case, SMEs operating under small budgets would have to find the necessary resources to develop customer-oriented activities that would make them overcome the mid-range investment point and become truly customer-oriented companies.

### **5.3. Limitations and Directions for Further Research**

Every empirical study has certain limitations that should be acknowledged. First, it is possible that the generalizability of the findings may be restricted. To test the general validity of our findings it would be necessary to replicate our study to other countries. However, while our empirical analysis was focused on Brazil, we believe that our results should be of relevance to other emerging markets because of the similarities present in other emerging markets such as growth rates, relatively short history of local firms competing in foreign markets, and the role of the governments in actively encouraging local firms to go global. Additionally, whilst the study has provided strong empirical support for most of our hypotheses, the use of a cross-sectional research design cannot capture the dynamic aspects of the constructs incorporated in the model. Thus, a longitudinal study might offer further interesting insights on these relationships over time.

Moreover, the model can be expanded to incorporate additional internal and external factors. Examples are export dependence, export commitment, openness to innovation, marketing program standardization, and cultural distance. Finally, while in this article we explore the mediating role of customer orientation, future studies are also encouraged to examine the mediating role of other marketing orientation dimensions (e.g. competitor orientation). In the future, the analyses of these variables together with those adopted in our study will certainly add to our understanding of SMEs' export operations. Our study also shed light on a relationship that has been neglected in the literature: the quadratic effects of customer orientation on export performance. This warrants more research effort in the area.

## **6. Conclusion**

While most studies on customer orientation have been conducted in the context of domestic markets, our research extends this literature by assessing our model in an exporting context. Moreover, the selection of an emerging market (i.e., Brazil) as the setting for this study addresses a gap in the literature relating to the fact that most studies to date have been undertaken in developed countries with the consequent inapplicability of their results to emerging markets (Pangarkar and Wu, 2012). As a result, and given the growing importance of understanding the behavior of firms in foreign markets, particularly from emerging market firms, our research focuses on the impact of customer orientation on export performance.

We integrate the RBV approach and the SCP paradigm to develop our conceptual model. While the RBV approach is used to support the selection of the internal variables, SCP theory is selected to justify the external element in our conceptual model. Our results indicate that researchers who draw on the SCP theory regarding the effect of external elements should not simply examine the direct effect of the firm's market structure (e.g. competitive intensity) on firm performance, but should also focus on the effect of such structural characteristics on the firm's ability to implement a customer-oriented approach to achieve higher export performance. From an RBV theory perspective, the results support the notion that internal resources (i.e., technology intensity, and customer orientation) are key determinants in defining the firm's success in the export market.

Our research also extends previous work by examining the non-linear effect of customer orientation on export performance. The results suggest that the relationship between customer orientation and export performance is quadratic (U-shaped) rather than linear. This finding should have significant implications in terms of how we view the development of

customer orientation in a firm. And given the increasing importance of customer-oriented approaches in determining the firm's success in foreign markets, additional studies are needed to promote further understanding of this issue. Despite the need for more research in this area, we believe that this study provides new insights about the role of customer orientation and the drivers of export performance, and offers a good foundation for advancing understanding in this area.

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**Table 1**  
**Measurement Model and Reliability**

Constructs and items	Regression Weights	Standardized Loading	t-value
<b>Export Performance (CR* = .77; AVE** = .50; Alpha*** = 0.81)</b>			
Overall satisfaction	Set to 1	0.972	
Meeting expectations	0.931	0.880	12.324
Improved global competitiveness	0.323	0.328	4.129
Strengthened strategic position	0.423	0.417	4.919
<b>Customer Orientation squared</b>		1	
<b>Technology Intensity</b>		1	
<b>Customer Orientation (CR = .78; AVE = .55; Alpha = .79)</b>			
Competitive advantage based on understanding customer needs	Set to 1	0.644	
Monitor/assess commitment in serving customers	1.790	0.929	6.561
Business objectives driven by customer needs and satisfaction	1.150	0.603	5.817
<b>Competitive Intensity (CR = .81; AVE = .52; Alpha = .81)</b>			
Competition in our export market is cut-throat	Set to 1	0.842	
New competitive move almost every day	0.947	0.670	8.018
Promotion wars in our export market	1.035	0.807	10.496
Price competition is a hallmark	0.593	0.513	5.985
<b>Managerial Experience (CR = .66; AVE = .50; Alpha = .62)</b>			
Language proficiency	Set to 1	0.847	
Export experience	0.532	0.538	2.023
<b>Goodness-of-Fit Indices</b>			
Chi-square (df) = 104.962 (54); $p < 0.001$			
RMSEA = 0.060; CFI= 0.937; TLI= 0.909; IFI= 0.939			

Note:

\*Composite reliability (CR) (Bagozzi, 1980)

\*\*Average Variance extracted (AVE) (Fornell and Larcker, 1981)

\*\*\*Alpha (Cronbach, 1951)

**Table 2**  
**Correlation between Constructs**

Construct	Mean	S.D.	AVE	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Export Performance	2.78	.78	.50	.												
2. Customer Orientation	1.79	.74	.55	.43												
3. Customer Orientation <i>squared</i>	-	-	1	.41	.64											
4. Competitive Intensity	2.39	.90	.52	-.05	.22	.08										
5. Technology Intensity	3.16	.89	1	.10	.25	.11	.13									
6. Managerial Experience	3.68	.87	.50	.23	.32	-.20	.17	-.01								
<i>Control Variables</i>																
7. Size of the Firm	339	164		-.16	.03	.01	-.09	.05	.02							
8. Competitor Orientation	2.38	.83		-.11	.17	-.01	.04	.16	-.05	-.03						
9. Interfunctional Coordination	2.35	.83		.08	.51	.22	.20	-.11	-.07	.01	.25					
10. Psychic Distance	3.24	.97		-.02	.14	.17	.07	.11	-.12	-.11	-.07	.08				
11. Year of Internationalization	1992	6.29		.02	.07	.02	.06	-.16	-.01	.06	.02	-.03	.07			
12. Duration of International Business	17.10	6.38		-.02	-.05	-.06	-.01	.03	.08	.01	-.06	.01	-.19	-.72		
13. Age of the Firm	38.49	11.16		-.06	-.08	-.02	-.02	.12	-.09	-.10	-.01	-.02	-.04	-.59	.41	

**Table 3**  
**Coefficients of Structural Relationships and Goodness-of-fit Indices of the Structural Model**

Linkages in the model	Standardized	t-value
<i>Hypotheses</i>	Estimates	
H1: Competitive Intensity → Customer orientation	0.179	2.089**
H2: Technology Intensity → Customer Orientation	0.297	3.956***
H3: Managerial Experience → Customer Orientation	0.064	0.728
H4: Competitive Intensity → Export Performance	-0.175	2.059**
H5: Customer orientation → Export Performance	0.454	4.017***
H6: Customer orientation <i>squared</i> → Export Performance	0.187	1.994**
<i>Control Variables</i>		
Size of the Firm → Export Performance	-0.183	2.636**
Competitor Orientation → Export Performance	-0.047	0.628
Interfunctional Coordination → Export Performance	0.044	0.595
Psychic Distance → Export Performance	-0.132	1.767
Year of Internationalization → Export Performance	0.108	1.550
Duration of International Business → Export Performance	0.094	1.358
Age of the Firm → Export Performance	-0.001	0.018
<i>Goodness-of-Fit Indices</i>		
Chi-square (df) = 130.945 (71); $p < 0.001$		
RMSEA = 0.058; CFI= 0.935; TLI= 0.904; IFI= 0.938		

\*\*  $p < .05$

\*\*\*  $p < .01$

**Table 4**  
**Standardized Direct, Indirect, and Total Effects on Export Performance**<sup>a</sup>

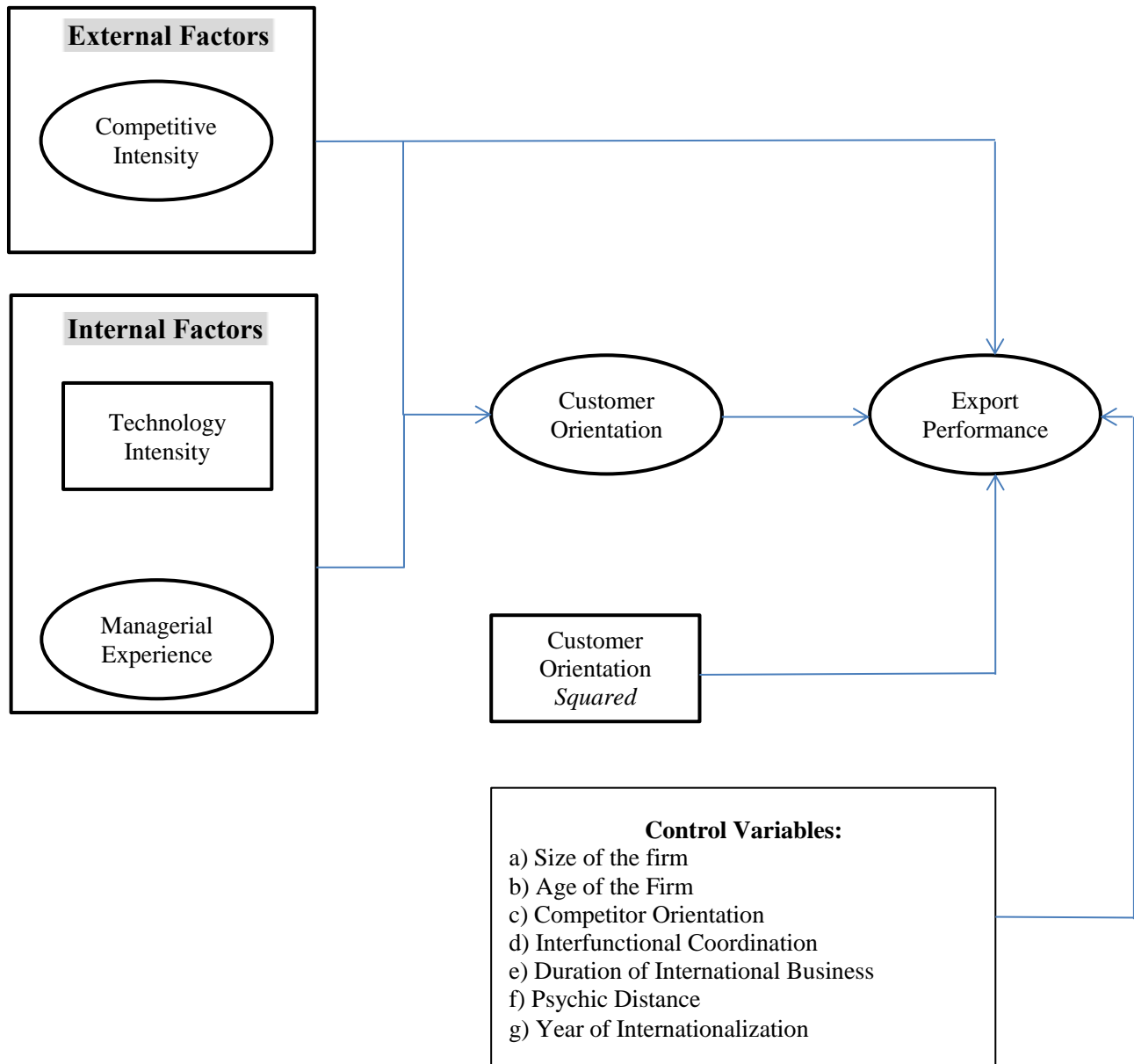
Construct	Direct Effects	Indirect Effects	Total Effects
Technology Intensity	0.102 <sup>ns</sup>	0.232***	0.334 <sup>ns</sup>
Managerial Experience	0.216 <sup>ns</sup>	0.087 <sup>ns</sup>	0.303 <sup>ns</sup>

\*\*\*  $p < .01$

ns – non-significant

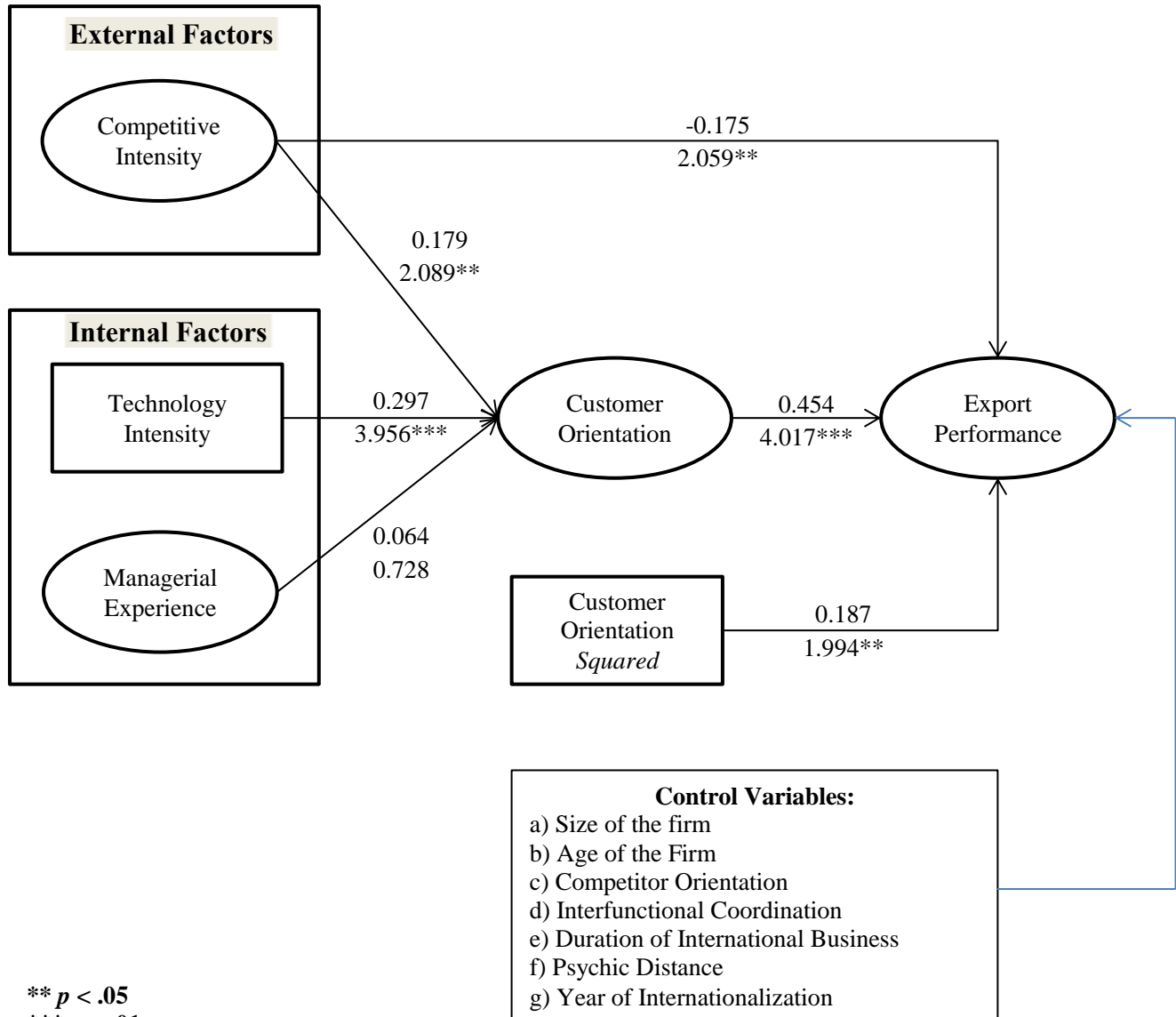
<sup>a</sup> – Bootstrap-bias corrected confidence interval based on 2,000 bootstrap subsamples.

**Figure 1**  
**Conceptual Model**



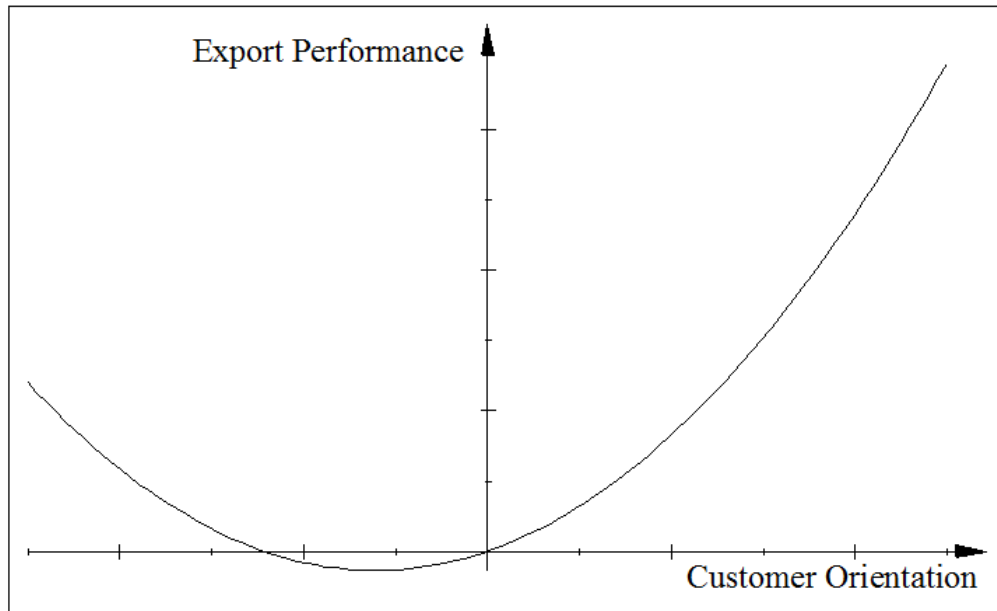


**Figure 2**  
**Final Model**



**Figure 3**

**Non-Linear Relationship between Customer Orientation and Export Performance**



## Appendix 1: Sample Characteristics

Firm employee size		%
	Between 1 and 49	7.6
	50 and 250	52.6
	251 and 500	39.8
	Total	100
Year of constitution		
	Between 1930 and 1959	2.1
	Between 1960 and 1980	40.4
	Between 1981 and 2000	53.2
	Between 2001 and 2006	4.3
	Total	100
Years firm has been engaged in exporting operations		
	Up to 5 years	15.3
	6 to 10 years	22.9
	11 to 15 years	15.3
	More than 15 years	46.6
	Total	100
Company Sector		
	Machinery	24.6
	Furniture and accessories	17.6
	Agricultural products	12.3
	Garments/Textile	5.3
	Shoes	5.3
	Food/beverage	7.0
	Automotive (parts/accessories)	5.3
	Communication products	1.8
	Chemicals/hygiene products/plastic	5.1
	Leather goods	3.5
	Tobacco-related goods	3.5
	Electronics	1.8
	Other sectors	7.0
	Total	100

## Appendix 2: Measurement Items

Constructs and items
<p><b>Export Performance</b></p> <p><i>Source: Zou et al. (1998); Sousa et al. (2010)</i></p> <ul style="list-style-type: none"> <li>- Overall satisfaction</li> <li>- Meeting expectations</li> <li>- Improved global competitiveness</li> <li>- Strengthened strategic position</li> </ul>
<p><b>Technology Intensity</b></p> <p><i>Source: Sousa and Bradley (2009)</i></p> <ul style="list-style-type: none"> <li>- Indicate the degree of technology intensity of the product in a five-point Likert scale ranging from ‘not technology intensive’ to ‘highly technology intensive’</li> </ul>
<p><b>Customer Orientation</b></p> <p><i>Source: Narver and Slater (1990)</i></p> <ul style="list-style-type: none"> <li>- Competitive advantage based on understanding customer needs</li> <li>- Monitor/assess commitment in serving customers</li> <li>- Business objectives driven by customer needs and satisfaction</li> </ul>
<p><b>Competitive intensity</b></p> <p><i>Source: Morgan et al. (2004)</i></p> <ul style="list-style-type: none"> <li>- Competition in our export market is cut-throat</li> <li>- New competitive move almost every day</li> <li>- Promotion wars in our export market</li> <li>- Price competition is a hallmark</li> </ul>
<p><b>Managerial Experience</b></p> <p><i>Source: Das (1994); Sousa and Bradley (2006)</i></p> <ul style="list-style-type: none"> <li>- Language proficiency</li> <li>- Export experience</li> </ul>

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